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SUGGESTIONS

IN REFERENCE TO THE

MEANS OF ADVANCING MEDICAL SCIENCE.



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SUGGESTIONS

IN REFERENCE TO THE

MEANS OF ADVANCING MEDICAL SCIENCE,

BEING

THE OPENING ADDRESS

DELIVERED BEFORE

THE MEMBERS OF THE HARVEIAN SOCIETY,

ON NOVEMBER 6TH, 1856.

BY

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&c. &c.

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SUGGESTIONS

IN REFERENCE TO

THE MEANS OF ADVANCING MEDICAL SCIENCE.

IN conformity with the usage imposed upon the President of this Society, Gentlemen, I appear before you this evening to deliver the Annual Address ; and although I have been engaged for more than thirty years in the complicated duties of tuition, and am therefore not altogether unused to the "*ex Cathedrâ*" style of speaking, I have nevertheless experienced no little embarrassment on this occasion, partly because of the intelligence of my present audience, partly because of the difficulty of bringing before you an appropriate subject for your consideration ; but chiefly from the conviction I entertain of my own inability to treat that which I have chosen in a manner worthy of your attention.

The very richness and inexhaustible nature of the mine from which the metal may be dug,—the innumerable subjects connected with the noble profession of Medicine, from which selection may be made,—the various modes in which those subjects may be handled, and the inferences or practical applications that may be deduced, have all contributed to render this task, gratifying though it be, one of more than ordinary perplexity.

On the one hand, any endeavour to elucidate a medical, physiological, or pathological question would argue presumption on my part, since there is not one in the whole range of

these sciences that could not be illustrated far better by many of my hearers than I could hope to do it; while, on the other hand, an attempt to extol the dignity of our profession would, I felt, drive me to the utterance of common-place platitudes, and the repetition of sentiments, with which we have all of us been familiar, year by year, ever since the commencement of the first session of our pupilage.

I have consequently thought that the few minutes dedicated to this discourse could not be more profitably occupied than in leading you on to ponder over some of those causes which have most tended to check the advancement of Medicine; for it is in vain to look for improvement in a science, unless its imperfections be first discovered and laid open.

First and foremost must be mentioned the uncertain nature of our profession, the ever-varying phenomena that are presented to our view,—the amazing difference that age, sex, climate, race, constitution, and diathesis occasion in the various individuals, the victims of the same identical disease.

The method of arriving at a truthful deduction on scientific subjects, as first suggested by Bacon, whilst it has achieved such glorious results for numerous departments of science, has accomplished comparatively little for medicine. Nor is this to be wondered at; for the questions involved in the study of medicine do not permit of the application of the inductive philosophy with the same strictness, that is adapted to almost all the other branches of scientific research.

It is this very uncertainty,—this want of uniformity in the application of rules to practice, in the adaptation of general laws to particular instances,—this constantly recurring newness in the features of the individual cases thrust upon our notice, which necessarily precludes its being received into the list of the exact sciences, and which indeed has disposed some philosophers, who will consider nothing scientific that cannot bear the test of the severe rules of inductive reasoning, to degrade it to the rank of a mere art. That this however is a most unjust appreciation of its merits must be confessed by every one who reflects for a moment on the number of collateral branches of

knowledge which must be studied, before even a superficial acquaintance with medicine can be attained, and on the enormous amount of mental labour which is required to cultivate anything approaching to a profound intimacy with it.

If the definition of Art be correct, that it is nothing more than “the application of knowledge to a practical end,”—merely an empirical employment of accumulated experience,—we are not arrogating too much for Medicine when we declare that its boundaries cannot be defined within these scanty limits; whereas, if, as Dr. Herschel affirms, “Science is the knowledge of many, orderly and methodically digested and arranged, so as to become attainable by one,”—if indeed it may be regarded as experience stored up, classified, reasoned upon, and brought under the domination of general principles, then are all these requirements truly answered and fulfilled by Medicine; and then we may safely claim for it the dignity of a science, an impress that was stamped upon it by the hand of Hippocrates himself.

Surely a pursuit to which so many men distinguished for the highest intellectual attainments have devoted their lives, and on which they have expended so much anxious thought, is worthy a position much more elevated than any variety of Art can hold, however beneficial it may be, however indispensable even to the happiness or comfort of mankind.

Nevertheless we cannot but acknowledge that as far as precision is concerned, Medicine is lamentably deficient; and in that respect, but in that respect alone, we must be contented to place it in the second rank, giving precedence to those Sciences whose phases are ever unchanged and unchangeable; and the study of whose peculiarities is based on sure, specific, and well-defined grounds.

Could we always select our subjects for observation at the times best suited for the purposes we have in view,—could we watch the processes going on within the body, either towards destruction or restoration,—could we actually see the changes effected by our remedies, as a chemist would note the actions of one substance on another in the crucible, or test-glass, then indeed our practice would be established on a solid and unerring

foundation, and our Science would acquire an approach to exactitude. As it is, much must necessarily be left to conjecture ; and that mind must be active, well-stored, deep-thinking, and penetrating, which surmounts the obstacles it meets with ; because the observer, being frequently compelled to substitute probabilities for facts, will be unable, without a considerable degree of acumen, to accord to each hypothesis, as it rises in review, its due share of the importance that it seems to merit.

Of all philosophers, the physician alone has to deal with animate matter ; an organism possessed of a moral and intellectual element, and powerfully acted on by the governing principle—mind. In the same proportion, then, as the causes which regulate the objects of his studies are obscure, in the same degree, while they throw a charm around his profession, they complicate his duties, and render them immeasurably more abstruse and difficult than any researches into the mysteries of the inanimate world, where the controlling laws are fixed and immutable, and deducible to a problem quite within the compass of man's understanding. For this very reason they raise the successful practitioner of medicine as far above the most learned and adroit mathematician or astronomer, as the possession of health is a greater blessing than a knowledge of the courses of the stars.

Another circumstance that has conduced in a great degree to retard the advancement of medicine, is the manner in which it has been studied. And I would particularly point to the neglect under which Anatomy has languished until comparatively recent times.

Civilisation, together with the improvements consequent on its progress, would naturally make the greatest strides in fertile countries and healthy climates, where there would be leisure for reflection, and a disposition for amusement. Accordingly many useful and ornamental arts, among them writing, were cultivated in the eastern parts of Asia long before even the earliest ages, of which the Greeks or other European writers give us any history. But the customs, superstitions, and climate of the Eastern world were as unfavourable to the

study of practical Anatomy as they were inviting to the cultivation of Astronomy, Geometry, Poetry, and such like elegant accomplishments.

The process of putrefaction runs on so rapidly in those latitudes, that the more early inhabitants must have been as much averse from practical anatomical pursuits, as are their immediate descendants of our own day; and, consequently, we find that neither in the writings of the Jews, Phœnicians, nor any other of the older Eastern nations, is any mention made of the study of Anatomy by dissection being prosecuted among them. In tracing it backwards to its infancy, we cannot go further into antiquity than the times of the Grecian philosophers; and their acquaintance with it was very superficial, since it was only followed as an art, or rather as a branch of natural knowledge, as the phrase then went.

Herophilus and Erasistratus, indeed, the founders of the celebrated Medical School at Alexandria, broke through the prejudices of the age, and, supported and encouraged by the first Ptolemy, taught anatomy openly, in the only way in which it can effectually be learned, by actual dissection of the human frame. Herophilus is said by Tertullian to have dissected six hundred bodies. We must of course here make great allowance for exaggeration; yet there is no doubt, that through his whole life he was a zealous cultivator of his favourite science. At this very day we are in the habit of using names, first given by him, as the *Torcular Herophili*, the *Calamus scriptorius*, and the *duodenum*. Unfortunately, the works of both these indefatigable promoters of anatomical study are lost, with the exception of a very inconsiderable portion; but they must have contained much interesting and useful information, as they are quoted by Galen in almost every page.

I may be permitted perhaps to indulge in a short digression here, when bringing under your notice the name of Erasistratus, because it is upon a subject in which we who assemble under the shade of the name of the great Harvey, must feel more than ordinary interest. I allude to the fact of Erasistratus having apparently arrived so near to the discovery of the

circulation of the blood ; for, in a passage preserved by Galen, he expresses himself as follows :—“ The vein arises from the part where the arteries, that are distributed to the whole body, have their origin, and penetrates to the sanguineous [or right] ventricle of the heart, and the artery arises from the part where the veins have their origin, and penetrates to the pneumatic [or left] ventricle of the heart.” This description, confused as it is, seems to prove that he believed the venous and arterial systems to be more intimately connected than was at that time generally supposed. Other passages confirm the superiority of his ideas concerning the circulation. The prevalent doctrine was that the veins arose from the liver, and the arteries from the heart. Whereas he contended that the heart was the origin of both the veins and arteries. With this conviction in his mind it could only have been his bending to the current notion of the age, which was, that the arteries contained air, that prevented his anticipating Harvey’s discovery.

The æra of the Grecian philosophy, as it was called, whose tenets kept such a firm hold of the Schools for so many centuries, commenced with Thales the Milesian, 480 years before Christ. And from the works of Plato, Aristotle, and others, we learn that both Anatomy and Physiology were embraced within the curriculum of this philosophy. As might have been expected, however, the former was most imperfect and erroneous, and the latter was encumbered with all the fanciful speculations that burdened the scholastic learning of those ages. I need only quote one sentence from Plato, to prove to you how crude and unsatisfactory was the Anatomy of the Grecian philosophers. That sublime author says, “ The heart is the centre or knot of the blood-vessels, the spring or fountain of the blood, which is carried impetuously round ; the blood is the pabulum or food of the flesh ; and for the purpose of nourishment the body is laid out into canals, like those which are drawn through gardens, that the blood may be conveyed, as from a fountain, to every part of the pervious body.”

With such ill-defined notions of Anatomy ruling the schools, we must not express astonishment at the mass of absurdities

under which medicine was smothered. The Greeks, with their ardent temperament, vivid sensibilities, and fertile imagination, found it much more easy to build up baseless hypotheses and fanciful theories, than to watch the changes which disease effects in the mortal frame; and much more pleasant to reason upon the flimsy fabrics they had thus erected, than to search after truth in the sickening and disgusting atmosphere of the dissecting-room.

Hippocrates, however, was destined to accomplish a grand revolution, and although not much better acquainted with Anatomy than Plato, Aristotle, and the other philosophers of those times, he nevertheless established a system of medicine which has been the admiration of every student of the science in each succeeding age. He, like our own countryman Bacon, saw the necessity of taking facts as the basis of all true knowledge and correct reasoning; he therefore broke through the trammels of the speculative philosophy of the times, and, by that bold measure, effected more good for our profession than can readily be conceived. For the scholastic philosophy, at the same time that it overthrew the delusions of superstition, had founded an edifice of hypothetical errors on their ruins; and the important benefit that medicine derived from the labours of Hippocrates was, that he, rejecting all extraneous matter, got rid at once of the hypotheses that had been heaped upon it by philosophy, and of the superstition which in the course of ages had grown up around and choked it;—and this simply by taking the book of Nature as his guide, and deducing his precepts from the result of actual observation.

The way in which he gained his consummate practical information is so well known, that a very brief glance at it will be all-sufficient for our present object. It had been the custom in Greece, from time immemorial, for the convalescents from various diseases, when they came to the temples for the purpose of returning thanks, paying their vows, and offering gifts for their recovery, to bring with them a history of the symptoms of their disorder, and an account of the curative means that had been used for their restoration. These

documents were preserved in the Asclepiæ, or temples of health, and one of the most famous of these temples existed in Cos, the birth-place and chief residence of Hippocrates. These temples were presided over by an order of priest-physicians—the Asclepiadæ,—to whom was intrusted the care, and no doubt the arrangement of these votive tablets into series suitable for reference, and adapted to practical purposes.

Thus was accumulated an immense store of facts relating to diseases and their treatment, to which he had ready access; and thus was laid the foundation of rational medicine,—“at first but a very simple art, consisting entirely of dietetic and therapeutic precepts, drawing no aid whatever from science,—existing in fact before science dawned, or authentic history began.”

It is not very clear, from the imperfect sketch of the life of Hippocrates that we possess, whether he was himself actually enrolled as a member of this order or not. But as the Asclepiadæ were the direct descendants from Æsculapius, and as Hippocrates claimed his origin from the same illustrious progenitor, there is every probability that he really was of the number, especially as his father Heraclides, and his grandfather Nebrus, were both physicians, and, as it would seem, attached to the Asclepia of Cos. Besides this, the privileges connected with that office, whatever they may have been, were limited to that family; and every branch of the family itself was devoted to medicine. In proof of which last assertion may be cited the fact, that the two sons of Hippocrates, as well as his son-in-law, were all practising physicians.

We cannot but regret that Hippocrates could not enjoy the advantages which dissection would have afforded him. Had he possessed the same opportunity of cultivating anatomy as fell to the lot of Herophilus and Erasistratus, it is impossible to divine what his transcendent genius might not have accomplished for medicine, since his description of the bones is given with so much accuracy. This, indeed, is easily accounted for; for he himself tells us that he had the gratification of studying the human skeleton.

In contemplating the rise of Medicine, and the various impediments that have stood in the way of its advancement, nothing can excite so great surprise as the unaccountable apathy displayed by mankind respecting the study of Anatomy. It is scarcely credible that a science so useful, so indispensable, indeed, and so interesting, as a knowledge of the mechanism of his own frame, should have been so completely neglected by man, as to have remained almost entirely dormant for more than 1700 years; from the time, indeed, of Herophilus, the first dissector of the human body, till the year 1315, when Mondini, professor at Bologna, ventured to re-establish practical anatomy.

No doubt the Jewish tenets, which the Mahomedans adopted, about the uncleanness and pollution of those who had handled a corpse, tended in no small degree to prevent the dissection of human bodies, and compelled anatomical students to be satisfied with making their observations on the carcasses of brutes. And that the prejudices of the Roman Catholic Church had a similar tendency is proved by the fact, that the Emperor Charles V., towards the middle of the sixteenth century, ordered a consultation of divines to be held at Salamanca, in order to determine whether or not it was lawful, in point of conscience, to dissect a dead body.

Fortunately these prejudices gave way before the growing thirst for knowledge; and rapid progress began to be made in this as in most other arts and sciences. It was not, however, till the crowning discovery of Harvey that any anatomical description of the body approaching to accuracy could be given, or any correct notions of physiology could be formed. And this discovery was not made by chance, it was not an accidental lucky hit, the offspring of vague surmise. Far, indeed, was this from being the case; it was the result of deep thought, and sound and well-directed reasoning. It is, in truth, the most splendid instance of the value of inductive philosophy as applied to medicine that is placed on record. Harvey promulgated his new doctrine before the College of Physicians in 1616; but it was not till 1628, twelve years after, that he

published it. He had the happiness to live to see the clamours of ignorance, envy, and prejudice, with which it was abundantly assailed, totally silenced, and to know that it was universally received and established.

But Harvey was by no means the first person who had seen the valves at the origin of the arteries, for Galen mentions them; nor even those in the veins of the extremities. Towards the end of the sixteenth century, Harvey, as was the custom of the times, went to Italy to study medicine; for Italy was then still the favourite seat of the Arts; and he became a pupil of the celebrated Fabricius ab Aquapendente. At the beginning of the seventeenth century, soon after his return to England, his late preceptor, Fabricius, published an account of the valves in the veins, which he had discovered many years before, and no doubt had shown in his lectures, when Harvey attended them. But his was merely a bald demonstration of their existence; and it was reserved for our illustrious countryman to point out their real value, and to found on them the correct theory of the blood's circulation.

I need not insist upon the rapid improvement that has been made, year by year, in the science of Anatomy since Harvey lived. Perhaps I ought to apologise for detaining you with the historical details that I have ventured to lay before you. But some account of the progress of Anatomy was essential to my argument, and I could not with propriety omit it.

And when I mention Italy in connexion with the sciences, I cannot forbear to pause for a moment, and drop a tear over her present state of degradation. The home of all that was great, chivalrous, and powerful;—though not the parent, still the nurse of all that was elegant and refined;—alas! what is she now! Trodden down by the rude despotism of tyranny, and over-ridden by the insolence of priestcraft, she pines and withers, she crouches and cringes to her dastardly rulers, crushed in spirit, and cramped in action. Will she ever lift her head again? Will she ever take again that rank among the nations of the globe, that the energy, the patriotism, and the intelligence of her people, if left to their own free agency,

would assuredly assume? God grant the day may not be far distant, when this long-desired consummation may be carried into effect; when the liberties of classic Italy may no longer be lacerated under the iron heel of the foreigner, not to say the usurper, the driveller, and the bigot.

“Yes, Italy! through every other land
Thy wrongs *should* ring, and *shall*, from side to side;
Mother of arts! as once of arms; thy hand
Was then our guardian, and is still our guide;
Parent of our Religion! whom the wide
Nations have knelt to, for the keys of Heaven!
Europe, repentant of her parricide,
Shall yet redeem thee, and all backward driven,
Roll the barbarian tide, and sue to be forgiven.”—CHILDE HAROLD.

When we contrast the present England and Italy with what England and Italy were two hundred and sixty years ago, when Harvey was driven from his native shores for want of food for his inquiring mind; and when he found a luxurious banquet of science and philosophy on those of the Mediterranean, what a grave lesson do we not find presented for our contemplation! What a picture is unfolded of industry, content, wealth, power, mental culture, and progressive improvement, on the one hand,—the children of constitutional liberty; and on the other hand, ignorance, idleness, poverty, a recession from the former high position, and constant attempts at revolution,—the invariable results of despotic tyranny.

We in England surely cannot be too thankful that we are permitted to live in a country where such blessings surround us, and in an age when we may luxuriate in knowledge with such small labour, and at such small cost; when the printing-press spreads its wide arms to the uttermost parts of the earth, and as it travels diffuses broadcast over the lands it traverses blessings, that, in reference to human happiness, can only be surpassed by the bountiful dew of Heaven.

How wonderful has been the progress of science during the last half century! What a revolution has been effected by its practical application in the social, the mercantile, and the political horizon! Changes have supervened far surpassing the most sanguine expectations of the most ardent minds. As

an instance I may mention, that when the great Stephenson was examined many years ago by a Committee of the House of Commons as to the feasibility of rail-road travelling, he gave evidence that he had no doubt twelve miles an hour might be obtained by the engines he proposed to construct; and as he left the room he said to a gentleman, well known to fashion, science, and the arts, now dead, but who himself told me the anecdote,* that he felt satisfied he might have substituted twenty miles for twelve, but that he feared he should then have been considered a visionary enthusiast, and so have damned the cause he had at heart.

Who could have supposed fifty years ago that wind and tide would ever be looked upon as elements scarcely worth the consideration of the mariner? Who could have imagined ten years ago that in 1856 a net-work of wires would be carried through the sea and over land, by means of which our thoughts could be wafted in an instant to every part of Europe; that even in Constantinople might be known what was passing in London in less time almost than is required by me to state the fact; and that, too, by the agency of the same power that must have caused such consternation to former generations? Who could have thought, even in the wildest dreams of romance, eight years ago, that ever human science could have bade the sun to stamp indelibly on a tablet the fine and delicate lineaments of the human face, the perfect elevation of a cathedral with all its ornamental tracery, or the exact features of an extensive landscape? Who would have thought that the Menai Straits would have been spanned by an iron tube capable of carrying, from bank to bank, a load of many hundred tons, darting through its cavity at a rate of thirty miles an hour? And in times not far removed from our own age, who would have dreamed that the dirty, despised coal-mines of England would have brought indescribably more wealth to their immediate possessors and to the country at large, than the far-famed mines of Golconda, or the gold and silver of Peru?

* The late Count D'Orsay.

Yet such things are ;—and what limit shall we dare to put to the majestic and soaring intellect of man ! Already the cable is coiled up that is to be cast into the depths of the Atlantic ; already Northern America is netted by the meshes of the electric wire ; and shortly an instantaneous interchange of ideas may take place between the shores of the Bosphorus, or the banks of the Neva, and those of the Mississippi. Nor is this all : Africa will be bound to the southern shores of Europe by the same mysterious chain. Egypt, Persia, the Indies, and China, will, most probably, soon be embraced within the magic circle. The North Pacific, with its host of islands, will offer little or no barrier to its extension ; a new link will be forged at San Francisco or Mexico to bind it to the Western World ; and “ then it will happen that a man may generate a spark in London, which with one fiery leap will return back under his hand and disappear ; but in that moment of time it will have encompassed the planet, in which we are whirling through space into eternity. That spark will be a human thought ! ” Thus the boast of Puck, “ I’ll put a girdle round the earth in twenty minutes,” fantastical and audacious as it must have appeared at the time it was written, is likely soon to be immeasurably distanced and out-done. No Arabian tale of supernatural interference can equal in apparent impossibility the serious truth of this naked fact. The most fanciful flights of the most imaginative people that ever breathed have fallen far, far short of this sober reality.

Nor has Medicine been behind-hand in this race of glory. It is the fashion to assert, that our science has stood still whilst all around us have been rushing onward in a torrent of advance. Those who deride us thus, know nothing of the progress that Medicine has made within the period I have specified—the last fifty years. If no other man had lived among us but Laennec, this age would justly have been stamped as an epoch in the history of physic. He has actually added a fresh sense to our perceptions ; he has taught us so to educate our ear, that we can watch the morbid changes going on within the body by the operation of sound,

as completely as if the parietes were diaphanous, and the destructive agent were at work under the cognisance of the eye.

The advantage over our predecessors which the speculum has given us, as a means of diagnosis and treatment in diseases of the uterus—although it is inferior to the stethoscope, inasmuch as it is applicable only to organs whose perfectly healthy condition is not essential to the preservation of life—can scarcely be over-rated. I grieve, nevertheless, to be obliged to state my conviction that this instrument has in some instances been shamefully abused, and has led to quackery in its worst and most humiliating form. Let us hope that these instances are rare, and will not affect its legitimate use, where necessity compels it; for in conscientious and judicious hands it has proved a great boon, and has been frequently the means of relieving not only bodily suffering, but, what is infinitely more difficult to bear, acute mental anguish.

But there is not a single branch of medicine in which there has not lately been made some most useful discoveries. What a new light has not Pathological Anatomy opened to our view? How many morbid conditions, hitherto unknown to us, has it not revealed? How many errors has it not detected and corrected? How many affections formerly thought to be primary diseases, has it not demonstrated to be secondary in their character, consequent on changes having taken place either in the neighbourhood of the organ itself, or in some other part of the body unconnected with, and even at a distance from, the seat of the distress?

Or let us regard Chemistry as applied to pathology, and here again we cannot but be struck with the enormous strides that the division of the science called Organic Chemistry has made; nor can we fail to see that it is yet in its early infancy; and much requires to be done, both by the hand and the head, before all is accomplished for medicine, which may be reasonably looked for, through the agency of pathological chemistry. Physiologists reckon the fluids of the body to be in comparison

to the solids as ten to one. Every secretion of the body—nay, the very blood itself under the influence of disease—undergoes a marked and palpable alteration, which may be recognised by our daily improving organic chemistry. Is it not more than probable, as many physicians, indeed, now imagine, that by far the greatest number of diseases originates in the vital fluid being contaminated in some of its essential properties? May not this morbid blood, poisoned from a thousand sources, be the cause of all the ills that flesh is heir to? Should this be the case, and the pathological chemistry of the fluids be ever studied as successfully as the pathological anatomy of the solids has been, may not an improved and more delicate organic chemistry both detect, and enable us to render these special poisons in the system inert; or, by means of the excreting organs, teach us to expel them altogether; and thus lead us onward to that consummation, so devoutly to be wished—the freeing the body from those noxious atoms, which have driven it from the even and smooth course of health into the tumultuous vortex of disease?

Immense improvement has taken place within the last few years in the adaptation of medicinal substances to the healing art; not only by the addition to our *Materia Medica* of some new drugs before unknown, but also in the concentrated and more convenient form in which we are now accustomed to exhibit many long in use. And this advantage has attended the alteration in question, that instead of their powers being impaired by the manipulations of the chemist, they are actually rendered more efficacious, and what is of not less moment, they may be administered with infinitely greater precision. No one can contrast the elegant preparations known as the alkaloids with the uncertain decoctions and clumsy powders of thirty or forty years ago, without confessing that a great change for the better has taken place in our method of dealing with some of our most useful therapeutic agents. And I think we may assume, that the day is not far distant when the chemist will compel every vegetable substance we employ in pharmacy to yield up its efficient principle in a concentrated and active

form, to the exclusion of its fibrous and all other inert matter.

While I am on this subject, I will venture to offer the opinion that medical men are not in general sufficiently attentive to the forms in which they administer their drugs, and to the vehicles in which they convey them; and I quite agree with the sentiments expressed by a celebrated author and practitioner of the present day,* that the *jucundè* recommended by Celsus is too much overlooked by us all. This appears to me to be a matter of no small importance; for it is clearly our duty, as it is our interest, to make the medicines we prescribe, especially in the case of young persons, as palatable as their nauseous qualities will permit.

But to nothing is modern medicine more indebted than to the microscope; and there is every reason to hope that our obligations to that invaluable instrument may, as time wends onward, be multiplied many fold. I will not descant upon the new worlds that it has unrolled to the gaze of the philosopher; nor upon the countless sources of rational delight that it has opened up to the less scientific inquirer, though the subject is inviting almost beyond comparison with any other. I must confine myself to a few of those points in which the medical profession is more particularly interested; and here there is no lack of material for observation. The study of minute anatomy, conducted by means of the microscope, has enlarged our knowledge of physiology to an extent that certainly could not have been effected in any other manner; while the history of the growth of the young ovum, and of development in general, has made us already so intimately acquainted with the mysterious workings of Divine Providence in these important particulars, as to leave apparently but little to be desired. Through the help of the microscope diseases hitherto unknown to exist have been discovered,—the true nature of some, before mistaken, has been disclosed,—and the diagnosis of others, where doubt may have existed, has been confirmed. Especially are we enabled to determine, in regard to tumors, whether they are

* Dr. J. Y. Simpson.

malignant or otherwise ; and we are rendered capable of judging by some of the excretions, as the urine for example, the exact state of the organ which supplies it. The value of the microscope in connexion with our science can hardly be placed at too high an estimation. I look forward indeed to the day when it will prove the most effective power that has ever yet been called into requisition in aid of medical investigation ; and I believe that in time it will be to medicine what the telescope is to astronomy.

With all these improvements so patent to the world, let no one again dare to taunt the physician with the cuckoo cry that medicine has remained stationary, while the physical sciences have made a bound unexampled in the previous history of their existence. We will show them that few have progressed with more rapidity, and not one with so much benefit to mankind, as that which we have the happiness to cultivate and practise.

This must not, however, induce us to sit down quietly in indolence and say enough has been done for our generation. It ought rather to stimulate us to increased energy of action, and incite each of us to use our best endeavours to add something, however trifling, to the common stock of knowledge.

There is an unfounded apprehension sometimes expressed that the reputation of indulging a taste for scientific pursuits will injure its possessor in the eyes of the public ; because it is imagined that a man who devotes himself to the abstruseness of science will lose his disposition for the routine of practical engagements, and not give up the time necessary for the proper performance of his ordinary duties.

I need not observe, Gentlemen, that this is a specious fallacy. That the pursuit of science is much more attractive than the dull monotony of practice, we need none of us be told ; but that the blending of science with his every-day employment unfits the physician for his practical duties, is a position unwarranted by reasoning, and negatived by many splendid examples among our own contemporaries. With the vulgar such a notion may be prevalent, but there is scarce an individual among the better class in these days who, whatever may be his professional

occupation, does not dedicate some part of his time to one or other branch of scientific acquirements. Such a man will know and feel how much refreshment there is in diverting the mind occasionally away from the common concerns of life, to some object of special interest; for it is in a variety rather than an absolute suspension of mental labour that relief is afforded to the jaded mind.

A third cause, to which we may attribute the slow progress of medicine, is the manner in which it is regarded and received by the public; and this resolves itself into two heads,—the first, the protection and encouragement given to the profession by different governments; and, secondly, the treatment which its members receive from individuals.

As regards the first, it is a humiliating fact that in England the government do little or nothing towards promoting the spread of medicine as a science, or enhancing its usefulness practically, as a profession. Nay, more;—by the shameful sale of patent medicines, permitted only on account of the gain derived from a paltry tax, they both insult the authorised practitioner, endanger the lives of the public, throw a shield around the most flagrant quackery, and clog the legitimate exercise of the profession. Moreover, the law still exists, by which, should the unfortunate termination of a case become the subject of judicial investigation, the highest and most enlightened member of our community would be placed exactly on the same level as the most arrant and ignorant empiric.

Another * grievance that we may justly complain of is, that there are no places of honour or emolument set apart for the members of the medical profession, as there are for divines and lawyers. The utmost a medical man can hope for, because it is the highest point he can possibly attain to, is to have the honour of knighthood or a baronetcy conferred upon him,—

* These sentiments, in nearly the same words, may be found in the second edition of my friend's, Risk Allah, Effendi, M. R. C. S. E., work, entitled "The Thistle and the Cedar of Lebanon." But as he requested me to write for that edition a few pages on the present position of the medical profession in England, and as what I then wrote is applicable to my argument in this place, I have transcribed a part of it; and I append this note, lest it might be supposed that I have used without acknowledgment another person's lucubrations.

distinctions which are bestowed on Lord Mayors and Sheriffs with a much more profuse hand than on the scientific portion of the people. The Archbishop of Canterbury ranks next to the members of the Royal family, and the Bishops take precedence of all temporal barons. The Lord Chancellor's rank is next in order to the Archbishop; and thus the two highest offices in the realm are open to the ambition of the most obscure student in Divinity and Law, while to the professors of medicine not even a commissionership is ever offered.

With an equally niggard hand are pecuniary grants and pensions distributed. There must, indeed, be something very extraordinary in the case that would induce the Minister to make a grant of money to any member of the medical profession, however benefitted mankind might have been by his discoveries, and however old and indigent he might have himself become. Successful soldiers are titled and pensioned, and any man who has invented a destructive weapon of war is held in high estimation; while those who have devoted their lives to the mitigation of human suffering are passed over as unworthy of regard. Such is surely a suicidal and narrow-minded policy, because it tends to drive young men of high talent and promise, who might otherwise be disposed to seek medicine as a profession, into other walks of life. Every encouragement, on the contrary, ought to be held out to the flower of the rising generation to enter into the medical profession as a study, since the health, and consequently the happiness, of the community are intrusted, under Providence, to their keeping.

With this view some posts of distinction should be put aside or new ones created, and appropriated to the professors of medicine; and in that case it would soon be discovered that a preliminary scientific education, and the knowledge acquired in the intimate intercourse with society, enjoyed by the medical practitioner, by no means disqualified him from undertaking places of trust, and executing delicate and important services.

Have we any means of rectifying this anomalous state of

things within our own power and in our own hands? I think the constitution of the House of Commons affords it to us, if we would only bestir ourselves to make use of it. In the Chambers of both Lords and Commons the law possesses a large and even overwhelming force; and although the constitution of the country precludes the ministers of religion from holding seats in the Commons, that want is well supplied by the talent and eloquence of the members for the universities of Oxford and Cambridge; and the omission is, moreover, fully and excellently made up by the number, learning, and energy of the Bishops having seats in the House of Peers: while our profession may be said to be practically unrepresented in either.

Why cannot some influential members of our profession be induced to come forward as candidates for the honour of the representation? I am persuaded that such a move would be hailed by us all with much satisfaction, and that great efforts would be made by the body at large for the accomplishment of their return; and I am equally persuaded it would be to the interests of even actual practitioners, to hold seats in the legislative assembly. Thus matters connected with the medical profession would, at any rate, obtain a fair hearing, and not be slurred over, and shelved in so indecent a manner as we now constantly see them. The Government might even be driven to extend the franchise to some scientific corporations; and if the University of London, the Royal Colleges of Physicians and Surgeons, and some of the northern universities, had the privilege granted them of sending representatives to Parliament, the addition might be found to be as much for the benefit of the nation as for the honour and advantage of the profession itself.

It is gratifying to be able to say, that although our Government and some other public bodies conduct themselves in such a manner towards the medical profession as to leave it to be inferred that they underrate its value, and disregard its interests, yet that individually the professors of the healing art are held in high respect and consideration. In every age, indeed, as far as history will carry us, physicians have been

looked upon with peculiar estimation. Many passages in Homer express in strong language the attachment and respect that the Grecian heroes were supposed to bear to their medical followers. One striking incident shows this affectionate regard in a very interesting light. At the time that Machaon is represented as being wounded—

“When trembling Greece for her physician feared,”

Nestor and Idomeneus were fighting side by side. Idomeneus, when he perceived the mischance that had happened to Machaon, regardless that he himself would be forsaken, exhorts Nestor, with great earnestness, to bear him away in safety to the ships, exclaiming

Ἴητρος γὰρ ἀνὴρ πολλῶν ἀντάξιός ἔστω, ἄλλων,
Ἴους τ' ἐκτάμνειν ἐπὶ τ' ἥπια φάρμακα πάσσειν.

In the fascinating version of Pope thus rendered—

“A wise physician skilled our wounds to heal,
Is more than armies to the public weal.”

On another occasion Homer characterises Machaon as Ἰσόθεος φῶς, “the god-like mortal.” And numerous examples might be quoted from the life of Hippocrates and others, of the veneration which was paid to the physician.

Contrasting this with the lampoons hurled against our profession by some of the writers in the beginning of the last century, we cannot but acknowledge that the ancients entertained and evinced a much more just appreciation of the benefits conferred on the human family by an intelligent cultivator of medicine than do the moderns. We have been assailed successively by the banter of Cervantes, Molière, Le Sage, Dean Swift, and a host of minor fry. “The following apologue,” says the witty D’Alembert, “made by a physician, represents very well the state of medicine:—‘Nature is fighting with the disease; a blind man, armed with a club, that is, the physician, arrives to settle the difference; he first tries to make peace; when he cannot accomplish this, he lifts his club

and strikes at random. If he strikes the disease he kills the disease; if he strikes nature he kills nature.'” Le Sage makes his celebrated hero Gil Blas, after being laid up with a fever in an obscure country village, say, that “providentially, there being no physician in the place, he had a happy and speedy recovery.” Even the polished and classical Addison has a fling at us. “If we look,” says he, “into the profession of physic we shall find a most formidable body of men. The sight of them is enough to make a man serious; for we may lay it down as a maxim, that in proportion as a nation abounds in physicians it becomes thin of people.” “This body of men,” he continues, “in our country, may be described like the British army in Cæsar’s time: some slay in chariots, and some on foot. If the infantry do less execution than the charioteers, it is because they cannot be carried so soon into all the quarters of the town, and despatch so much business in so short a time.”

Perhaps this sarcastic raillery may be excused at the period which we may call the infancy of modern medicine, when there was so much pretension and so little knowledge. But the same excuse will not hold good in regard to the year 1856. We should scarcely have expected to find a member of the Imperial Legislature at this time of day stating openly in his place in Parliament, that “if the doctors had had their own way we should never have had chloroform, nor any of the valuable discoveries that in modern times have been introduced with such advantage to the interests of humanity.” Yet these were the reported words of Mr. Henry Drummond, member for West Surrey, on the 2nd of April of this very year; and in commenting on the debate, during which Mr. Drummond made these assertions so contrary to truth, the leading journal of Europe remarks, “There is so much guess-work in medicine—the President of the College of Physicians is so nearly on a level with the meanest herbalist—the result of the longest, most varied, and most profound medical experience is so often a discovery of the worthlessness of medicine, that we are not able to attach overwhelming importance to examinations in

this department of the science. But Surgery is different; there all is capable of demonstration, and an examination can readily test a candidate's knowledge. Medicine is, in truth, surgery at fault; and the difference between the two is precisely the difference that there is between mathematics and metaphysics." Is it not clear that this enlightened critic is talking on a subject with which he is perfectly unacquainted? Few things, indeed, could demonstrate more plainly the ignorance on medical matters that pervades the mass of mankind than this quotation, in which the *Times* itself (on most subjects so correct, and among whose leading articles may be found some of the most beautiful essays in our language) makes so decided a distinction between Medicine and Surgery—a distinction that no member of the profession will now-a-days recognise. How can we wonder at the erroneous and illiberal views we see constantly developed by the people at large on the subject of medicine, when such are the sentiments promulgated by a periodical that professes to carry so much weight in leading public opinion.

Mr. Drummond, and those who cheered him, should be told that it is not the medical profession, but such members of the community as himself, who would prevent the promulgation of discoveries fraught with such blessings to humanity. I would like to ask Mr. Drummond, what would have become of the Sanitary Bill, if it had not been for the doctors? I would tell Mr. Drummond that no sanitary measures would ever have been carried through Parliament if the medical profession had not turned the screw so tight that resistance was impossible; and that while they were pressing these measures with their whole energies on the attention of the legislature, they all knew they were actually cutting their own throats.

Some twenty years ago, an enormous sewer was carried along High-street, Whitechapel, and branch-sewers formed to communicate with it, from all the small side-streets; among them, one from the densely populated district of Middlesex-street, formerly called Petticoat-lane. Not long after its completion, I was passing, in the middle of the day, the house of

a general practitioner in Raven-row, a part of that neighbourhood, and seeing him standing at his shop-door, knowing at the same time that he was very much engaged in his particular circle, I enquired of him how it was he was idle at that hour of the day. His reply was, "Why, sir, those abominable Commissioners of Sewers have ruined me: I used to have twenty excellent cases of fever at a time on my books; and now, I have not two." Every doctor was well enough aware that the sanitary measures, when carried into effect, would cut down his twenty excellent cases of fever to two; and yet they worked heart and soul for the accomplishment of this great end. Perhaps there never was a more disinterested and self-sacrificing move made by any large body of men. When would the lawyers be found combining together, in order to drive the executive into the passing of an Act, which they foresaw would deprive them of half their emoluments,—even although it were to be for the public good. Yet, this and more have the calumniated members of our profession done.

I need not insist on the sacrifices we make for the public at large. The very fact of the number of societies similar to this, existing in London, and every large town, is sufficient evidence of our disinterested zeal. When it is considered that men of the first eminence in the profession meet night after night, at no little personal inconvenience to themselves, and probably at some pecuniary loss, to compare with their brethren the result of their experience in disease, and thus render themselves more fitted for its treatment, not for their own sake, but that of the public, I think we have a right to arrogate to ourselves a consideration far beyond that which is vouchsafed to us as a body.

It will be gathered from what I have said, Gentlemen, that we have not only had to withstand the shafts of malice and derision, but also to bear up against the effects of ignorance and misrepresentation. All these must necessarily have lent a hand to obstruct the onward march of Medicine. But another cause may be assigned, originating in the manner in which the public impede the efforts of their responsible advisers by

interfering in the treatment of their own cases. Every medical man will acknowledge that the views the public entertain of medicine are very inconsistent and erroneous. They seem to invest disease with a personal individuality, and regard it as a substantive enemy, whom it is necessary to conquer by the strong hand; and they think that man the cleverest doctor who can knock down each variety of ailment in the quickest manner by some specific process. This leads very commonly on the part of the patient to the desire to take the management of his case greatly into his own hands, and to act, as he will tell you, upon the dictates of common sense,—forgetful that common sense, although an excellent guide in the ordinary affairs of life, will not stand in lieu of the definite principles and special systems inseparable from the prosecution of any scientific problem. Dr. Whately has an apt illustration in point. “A sailor will despise the pretensions of medical men, and prefer treating disease by common sense; but he would ridicule the proposal for navigating a ship by common sense, without regard to the maxims of nautical art.” If individuals would rely as implicitly on their physician as they actually do on their lawyer, and would do on the captain of their vessel in a stiff gale of wind, one of the greatest impediments to the progress of medicine would disappear; one, too, that leads to innumerable evils, of which the tendency to fall into quackery is not the least. We must all lament the extent to which empiricism is encouraged in the present day, even by persons high in office, and accounted of sane, though perhaps not strong mind. But this is by no means an anomaly; we have abundant proof that no age has been exempt from the pollution of the impudent charlatan, and ignorant pretender; nor will any future be, so long as the love of the marvellous exerts such a powerful influence over the human mind.* I need not remind you that the most rampant delusion at

* Bacon tells us, “The weakness and credulity of man is such that they often prefer a mountebank or a witch before a regular physician;” and Pliny writes, “Of all arts, Medicine is the only one of which any one may boast a knowledge, and have immediately ready listeners.”

present in vogue is homœopathy; and the puerilities and contradictions of this pseudo-science are so great as to render it inconceivable, that it should have taken such a strong hold on the imagination of the public. It must be a subject of great regret to us, that so many legally qualified practitioners also have ceased to regale themselves at the pure fountain of physic, and have drunk so deep of this turbid and corrupted stream. We must deplore their loss, as an army in the field would both deplore and pity its deserters. But like a well-ordered armament, we may feel that we are strong enough to dispense with their cooperation altogether.

Much however as we must despise the principles of homœopathy as applied to medicine, we must nevertheless confess that its practice has taught us a most valuable lesson, one which could only otherwise be acquired by a long-continued course of careful observation. I allude to the wonderful powers that Nature possesses for the subjugation of disease, which has been too much overlooked and too slightly regarded. We were scarcely prepared to believe in the possibility of a spontaneous, favourable termination of so many serious disorders. This indeed had been constantly observed in the eye, the skin, and other parts of the frame that come directly under the sight; but it was reserved for homœopathy to point out to us in how many affections the unaided power of nature will complete a cure. We should do well to keep this hint constantly before our minds; and upon the principle that "*fas est ab hoste doceri*," we may imbibe a lesson that will be useful to us all our lives.

I fear too that the present taste for specialities has tended in the same direction. It is no doubt much for the public benefit that in large communities men should apply themselves to particular departments of our difficult and comprehensive profession, as well as to the interest of the individual himself. But it is a great question whether this parcelling out the profession into little bundles, into petty pennyworths, as it were, does not interfere materially with that enlarged view which every physician should entertain and endeavour to

disseminate. There is great danger lest the practitioner should in time regard the organ he expressly takes under his protection as an isolated being, distinct and separate from the grand whole, and that, by constantly directing his thoughts to its irregularities, he will in time attribute to its ailments more importance than they actually deserve, whenever indisposition has attacked the system at large.

And here again the feeling of the public has a tendency to crib up medicine within narrow bounds, and to fetter its advance. They will continually speak of a lung-doctor, or a stomach-doctor, an eye-doctor, or an ear-doctor, as if each of these parts were separate entities; and they seem to think that a man may have wit enough to grapple with the diseases of one organ; but that two are beyond his powers; and that in the treatment of any, except his own particular favourite, he is little better than a dolt. Last winter I was in attendance upon the wife of a publican, who was dying from phthisis. On one of my visits, I learned that she had left home to see a surgeon of eminence, attached to an ophthalmic hospital, as well as to one of the large general hospitals, whose care she had been under for a long time on account of a troublesome ulcer of the leg, but which I had never heard of before. In telling me her daughter had been out to see a surgeon, the mother, in an apologetic tone, fearing, I presume, that I might take offence, said, "But you know, sir, he is only a doctor for eyes and legs, he is not a doctor for physic."

It has always been my strong desire that the public mind should be disabused in this particular; that they should know that Medicine is studied as a whole, and practised as a whole; and that, although some among us may pay more attention to the derangements of one particular organ than to those of others, still that such selection does not incapacitate any man of ordinary intelligence from treating scientifically, and with judgment, whatever diseases may come before him.

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